

No. 879,433.

PATENTED FEB. 18, 1908.

W. M. AMMERMAN.
RUFFLER ATTACHMENT FOR SEWING MACHINES.
APPLICATION FILED MAR. 16, 1903.

Fig. 1

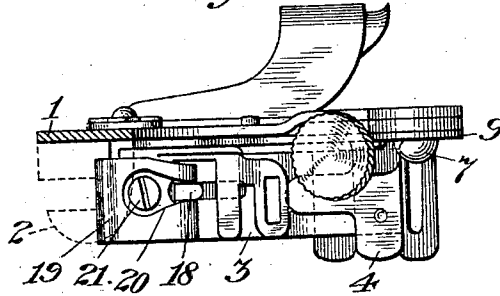


Fig. 2

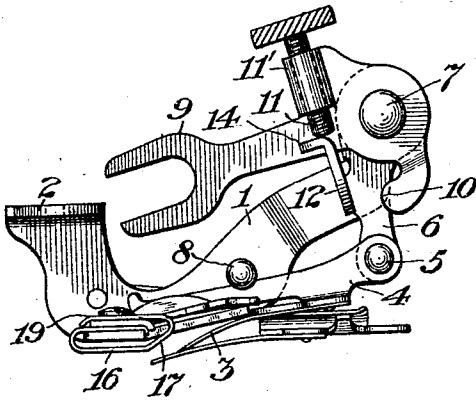


Fig. 3

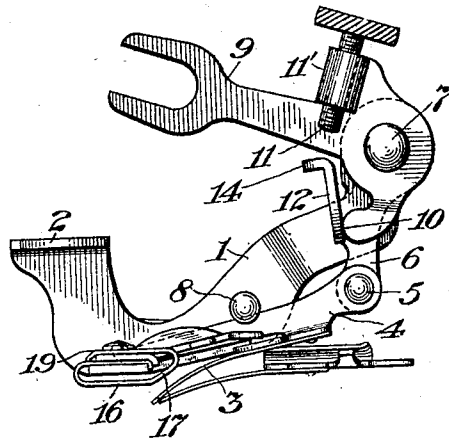
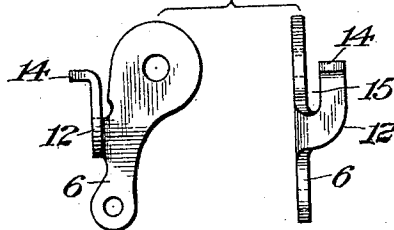


Fig. 4



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RUFFLER ATTACHMENT FOR SEWING-MACHINES.

No. 879,433.

Specification of Letters Patent.

Patented Feb. 18, 1908.

Application filed March 16, 1903. Serial No. 147,890.

To all whom it may concern:

Be it known that I, WILLIAM M. AMMERMAN, a citizen of the United States, and resident of New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Ruffler Attachments for Sewing-Machines, of which the following is a specification.

This invention has for its object to provide an improved ruffler attachment for sewing machines that is simple in construction and efficient in operation; the invention consisting in certain novel features of construction and combinations of parts as hereinafter set forth in detail and pointed out in the claims.

Referring to the accompanying drawings forming part of this specification, Figure 1 is a top plan view, partly in section, of a ruffler attachment embodying my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a similar view with the operating parts in a different position. Fig. 4 is a detail view illustrating a side and end view respectively, of one of the operating parts of the attachment.

In the drawings, 1 indicates the main supporting plate or frame of the attachment which, as most clearly shown by dotted lines in Fig. 1, is provided with a notched or bifurcated arm 2 for detachable connection with the presser-bar of a sewing machine, upon which the attachment is adapted to be supported and held in operative position.

The ruffler-blade of the attachment, indicated at 3, is secured to a sliding carrier 4 which is pivotally connected at 5 with the lower end of a vertically-arranged lever 6, termed the ruffler-blade lever, the upper end of which is pivotally mounted on a stud or pin 7 attached to the supporting-frame 1. This lever 6, in the operation of the attachment, is adapted to be oscillated to give the connected carrier 4 with the attached ruffler-blade 3 their usual horizontally reciprocating movement, the said carrier 4 being guided during its operation by an engaging pin 8 which projects from one side of the supporting frame 1 as shown.

The means for operating the lever 6 to impart an oscillating movement thereto comprises a lever 9, termed the operating lever, which is pivoted at one end upon the pivot 7 for the lever 6 and at its opposite or free end

is bifurcated for connection with a projection on the needle-bar of a sewing machine from which it is adapted to be operated in the usual manner. This lever 9 is provided with two contact points for engaging with an intermediately located part of the lever 6 and operating the same, the said contact points being carried by the lever 9 at opposite sides of the pivot 7 and one, indicated at 10, being in the form of an arm or extension of the said lever, and the other, indicated at 11, being in the form of an adjusting-screw carried by a lug 11' on the said lever.

The lever 6, as a means for receiving the engagement of the contact points 10 and 11 of the operating lever, is provided with an arm 12 extending outwardly at right angles thereto and into the path of movement of the contact point 10, the upper end of which arm is bent at an angle, as at 14, and extends into the path of movement of the second contact point 11. By this arrangement and combination of parts, the operating lever on its up and down strokes causes the contact points 10 and 11 to alternately engage with the arm 12 of the lever 6 and oscillate the latter to communicate the desired reciprocating movement to the connected ruffler-blade, the length of the reciprocation of the latter being regulated by adjusting the position of the contact point 11 relative to the contact point 10 so as to vary the amount of lost motion between the same and the lever 6, it being understood that the throw or movement of the operating lever is fixed. As the said operating lever moves in a path the plane of which is between the lever 6 and the end of its projecting arm 12, the latter is so arranged relatively to the said lever 6 as to provide a space between the same, indicated at 15 in Fig. 4, into which the operating lever may pass on its downward stroke, as shown in Fig. 2.

As one of the features of my present invention, the spring presser-foot of the attachment, indicated at 16, instead of terminating at its upwardly-turned front end or toe 17, as in my former patent No. 629,736, dated July 25, 1899, is extended at such end and turned backwardly upon itself in the form of a loop, the front end of which is provided with a notch or opening 18, for the passage of the sewing machine needle in its vertical

reciprocations. The principal purpose of thus giving a loop form to the toe of the presser-foot is to minimize the liability of the front end of the ruffler-blade being drawn upward by the work when the latter is being disengaged from the attachment and caught on the upper side of the presser, as was liable to occur with the presser as disclosed in my said prior patent. A further feature of the presser having a loop form at its toe as described is the fact that it prevents the presser becoming unduly bent or disarranged, as the upper side 19 of the loop extends backwardly upon or above a fixed part of the attachment and so prevents undue downward movement or bending of the presser-toe, such backwardly extending upper side 19 of the loop being formed with an opening 20 therein as an extension of the notch 18 through which the attaching-screw 21 for securing the presser-foot to the attachment may be reached.

What I claim is:

In a ruffler attachment for sewing machines, the combination, with the ruffler-blade, of actuating means therefor, comprising a ruffler-blade lever having an arm projecting laterally and upwardly therefrom with a space between it and the lever, and an operating lever located at the same side of the ruffler-blade lever as its said arm and being operative in a path intersecting the said space between the ruffler-blade lever and its arm and being provided with two contact points for engagement with the said ruffler-blade arm.

Signed at New York in the county of New York and State of New York this 14th day of March A. D. 1903.

WILLIAM M. AMMERMAN.

Witnesses:

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